WHAT IS CLAIMED IS:

1. An apparatus for processing an edge of a sheet of material, said apparatus comprising:

an encapsulation device for supporting two surfaces of the material;

a processing device for processing the edge adjacent to the supported two surfaces of the material that is located on a first side of said encapsulation device; and

said encapsulation device substantially prevents particles and other contaminants generated when said processing device processes the edge of the material from reaching the two surfaces of the material located on a second side of said encapsulation device.

2. The apparatus of Claim 1, wherein said encapsulation device includes:

a support plate;

a pair of porous plates supported by said support plate and pressurized by air received from said support plate which flows through the porous plates and supports the two surfaces of the material within a gap between the porous plates, wherein the pressurized air emitted from the porous plates substantially prevents particles and other contaminants generated when said processing device processes the edge of the material from reaching the two surfaces of the material located on the second side of said encapsulation device.

3. The apparatus of Claim 2, wherein said encapsulation device further includes a pair of guide wheels for guiding the two surfaces of the material within the gap between the porous plates.

4. The apparatus of Claim 1, wherein said encapsulation device includes:

a support plate,

a pair of O-ring assemblies, supported by said support plate, each O-ring assembly includes:

a pair of rollers;

a seal plate; and

an O-ring located around said pair of rollers and a said seal plate, wherein said O-rings support the two surfaces of the material and substantially prevent particles and other contaminants generated when said processing device processes the edge of the material from reaching the two surfaces of the material located on the second side of said encapsulation device.

5. The apparatus of Claim 1, wherein said processing device is capable of cutting, scribing, grinding or polishing the edge of the material.

6. The apparatus of Claim 1, wherein said processing device includes a shroud box in which the particles and other contaminants are contained and evacuated from while processing the edge of the material.

7. The apparatus of Claim 1, wherein said material is a glass sheet.

8. A method for processing an edge of a sheet of material, said method comprising the steps of:

supporting two surfaces of the material within an encapsulation device;

processing the edge adjacent to the supported two surfaces of the material that is located on a first side of said encapsulation device;

preventing particles and other contaminants generated during the processing step from reaching the two surfaces of the material located on a second side of said encapsulation device.

9. The method of Claim 8, further comprising the step of evacuating the particles and other contaminants generated during the processing step.

10. The method of Claim 8, wherein said processing step further includes cutting, scribing, grinding or polishing the edge of the material.

11. The method of Claim 8, wherein said encapsulation device includes:

a support plate;

a pair of porous plates supported by said support plate and pressurized by air received from said support plate which flows through the porous plates and supports the two surfaces of the material within a gap between the porous plates, wherein the pressurized air emitted from the porous plates substantially prevents particles and other contaminants generated when a processing device processes the edge of the material from reaching the two surfaces of the material located on the second side of said encapsulation device.

12. The method of Claim 11, wherein said encapsulation device further includes a pair of guide wheels for guiding the two surfaces of the material within the gap between the porous plates.

13. The method of Claim 8, wherein said encapsulation device includes:

a support plate,

a pair of O-ring assemblies, supported by said support plate, each O-ring assembly includes:

a pair of rollers;

a seal plate; and

an O-ring located around said pair of rollers and a said seal plate, wherein said O-rings support the two surfaces of the material and substantially prevent particles and other contaminants generated when a processing device processes the edge of the material from reaching the two surfaces of the material located on the second side of said encapsulation device.

14. The method of Claim 8, wherein said material is a glass sheet.

15. An apparatus for processing an edge of a glass sheet, said apparatus comprising:

a processing device; and

an encapsulation device including:

a support plate;

a pair of porous plates supported by said support plate and pressurized by air received from said support plate which flows through the porous plates and supports two surfaces of the glass sheet within a gap between the porous plates, wherein the pressurized air emitted from the porous plates substantially prevents particles and other contaminants generated when said processing device processes the edge of the glass sheet on a first side of said porous plates from reaching the two surfaces of the glass sheet located on a second side of said porous plates.

16. The apparatus of Claim 15, wherein said encapsulation device further includes a pair of guide wheels for guiding the two surfaces of the glass sheet within the gap between the porous plates.

17. The apparatus of Claim 16, wherein said processing device is capable of cutting, scribing, grinding or polishing the edge of the glass sheet.

18. An apparatus for processing an edge of a glass sheet, said apparatus comprising:

a processing device; and

an encapsulation device including:

a support plate,

a pair of O-ring assemblies, supported by said support plate, each O-ring assembly includes:

a pair of rollers;

a seal plate; and

an O-ring located around said pair of rollers and a said seal plate, wherein said O-rings support the two surfaces of the glass sheet and substantially prevent particles and other

contaminants generated when said processing device processes the edge of the glass sheet from reaching the two surfaces of the glass sheet located on the second side of said encapsulation device.

19. The apparatus of Claim 18, wherein said encapsulation device further includes a pair of guide wheels for guiding the two surfaces of the glass sheet within the gap between the O-ring assemblies.

20. The apparatus of Claim 18, wherein said processing device is capable of cutting, scribing, grinding or polishing the edge of the glass sheet.